

A STUDY OF THE FLUCTUATIONS WHICH HAVE OCCURRED IN THE PRICE OF WHEAT
ON THE LIVERPOOL AND WINNIPEG MARKETS
FROM 1929 TO SEPTEMBER, 1937

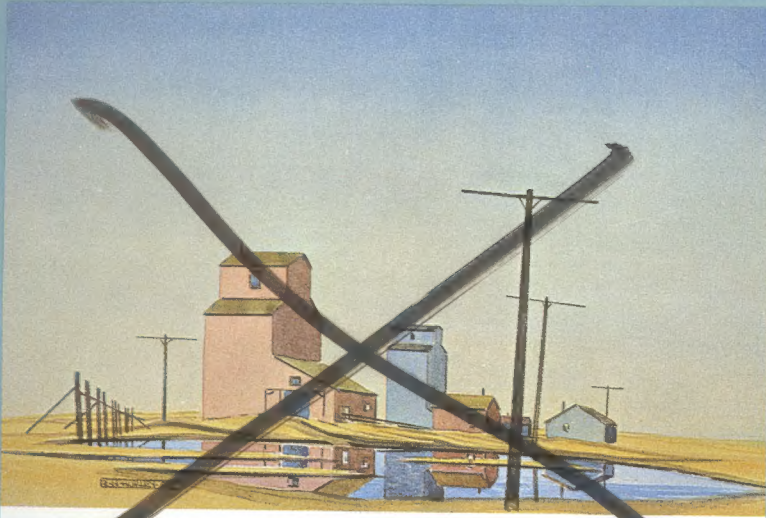
AND SOME OBSERVATIONS UPON THE VARIOUS FACTORS WHICH TEND

TO

INFLUENCE AND TO GOVERN WHEAT PRICES

Evidence of H. G. L. Strange
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The obtaining of a plentitude of food ever seems to have been, throughout the ages, man's chief concern. The finding of an abundance his greatest joy-the threat of a scarcity his greatest fear.

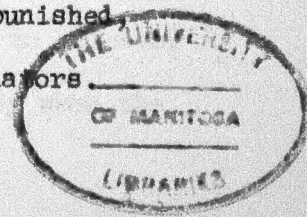
With some bewilderment, however, man always appears to have noted, so history informs us, that whenever food was scarce, and whenever nations went to wars, prices rose; and that whenever food was abundant, and soon after peace was made following wars, prices fell.

History tells us repeatedly, too, that the high prices in turn usually brought dissatisfaction to the people who consumed the food, but gratification to those who produced it; whereas, on the other hand, while low prices brought satisfaction to consumers, the same low prices usually caused discontent among producers.

These alternating gratifications and dissatisfactions, seem often to have urged the consumers, in times of high prices, and the producers, in times of low prices, to demand, of their Kings and Governments, that something should be done to alleviate the hardships which they found bore upon them.

These appeals to Kings and Governments often in the past were accompanied with most definite recommendations for action to be taken, usually founded apparently upon the assumption that it was the merchants and middlemen who handled and processed, or who speculated in the purchasing and holding of, the foodstuffs, who for selfish reasons of their own had deliberately brought about the scarcity or the abundance, the high or the low prices.

History tells us also that the Governments sometimes took for granted that the charges made were true, and so often severely punished, and at times even executed, the unfortunate merchants and speculators.



At times, in addition, the Governments themselves took complete control of the handling, distributing and marketing of the food, not unseldom after having fixed by law a maximum or minimum price.

The records of the past reveal that throughout the ages many attempts were thus made to control the people's foodstuffs at various times, by Kings, Princes and Governments in almost every country of the world. The usual object of the plans having been to equalize supplies with demand, and to stabilize price at a level that would be satisfactory both to producers and to consumers.

History fails to reveal, however, as far as I have read, that any of the attempts thus made achieved, beyond question, the aims sought. Clearly shown though, has been that many of the efforts not only dismally failed, but often made the conditions much worse, and at times even brought grave disaster upon the producers and upon the people as a whole.

These disasters were so great at times, that Kings and Governments were thrown out of power, and there are even some instances where those in charge of the schemes and plans lost their lives.

Miss Mary G. Lacy, the Librarian of the Bureau of Agricultural Economics, U.S. Department of Agriculture, Washington, in a paper entitled "Food Control During Forty Centuries" has set out a number of such attempts. A further compilation was issued in 1926 by the United States Department of Agriculture under the title "Price Fixing by Governments 424 B.C. to 1926 A.D." My Department has compiled the records of still other instances.

A study of the demands made upon Governments, alternately by consumers and by producers, to control, to regulate, and at times to take entirely into the Government's own hands, the production, distribution, processing, handling, marketing, and the fixing of the prices of foodstuffs, has led me to endeavor to determine why such demands so often have been made, particularly when the

records clearly reveal that time after time, previous and similar actions have failed, and have often brought about distress and suffering; taking into account also that the demands have been made usually by most sincere, honest and earnest people.

Such experience, as I have had in life, too, has led me to the firm belief that most people, when not under the influence of strong emotion, of passion, or of prejudice, are fair and reasonable. Not only this, but I have found in addition that most people also are usually quite competent to arrive at a logical and sound decision upon any question upon which they have understanding, and the necessary facts at hand.

I conclude, therefore, taking these things into consideration, that the true reason for most of the demands, which in the past have been made upon Governments by the mass of the people, and which have turned out to be, in the end, harmful, is that seldom if ever have the people had at hand the important and basic facts pertaining to the matters involved, and so, of course they cannot have had a proper understanding of the problems, and so, therefore further, have naturally been unable to suggest remedies that would be sound and beneficial to themselves and to all the people, and have been unable to perceive the harm in the proposals they made.

Among matters pertaining to the great wheat industry, about which I have found there ever seems to have existed most incomplete knowledge, primarily are those of the factors which bring about fluctuations in price, the factors which determine the average level of prices, and the important economic functions performed by fluctuating prices. In addition I find there has ever existed, and still exists, much misconception about those acts and functions described by the word "Speculation".

My Department since 1930 has each day collected, charted and studied the wheat prices on the different markets of the world. Moreover we have in

addition collected, compiled and studied daily, as they became available, the news, information, data and statistics, that influence and govern prices, and we have noted the relationship between the news and information on the one hand, and the fluctuation of prices on the other. For several years past we have published each month these compilations of price statistics and factors.

Perhaps, therefore, some contribution might be made to thought upon the subject, if some of the things we have found in our studies were to be set down.

For instance, with respect to the word "Speculation" - perhaps it is correct to say that in the Grain World no word has occasioned so much acrimonious discussion, nor has aroused so much emotion and passion, as this single term; and perhaps there is in the whole of Canada no word about which so much misconception and misunderstanding today still exists.

The simple word "Speculation", most unfortunately, is used to denote at least four different actions which do, or are said to, take place in wheat handling, distribution and marketing.

Firstly, the buying of actual cash wheat by merchants such as exporters or importers or vessel owners, etc., to hold the wheat unsold until a further buyer is willing to purchase it. Included with this group are sometimes millers and bakers, also those farmers who hold their own actual wheat after threshing for later sale, hoping for a rise in price; holding the grain either in bins, on their own farms, or in storage, in their own names and ownership in country or terminal elevators.

Secondly, the action or function of buying the farmers' wheat at harvest-time from country elevator companies by means of "futures" contracts, and of holding the wheat so bought until the millers or other ultimate purchasers of the world require it, and even at times until bakers require their flour at, usually, a much later date, or by doing what is technically termed "buying for future delivery".

This function of course is not only necessary, but indeed vital to the interests of Western Canadian wheat producers, for their wheat could not possibly be marketed, and so could hardly be produced, under any conceivable circumstances, unless some people were willing to perform this important service, and yet this function really, from an economic point of view, is speculation pure and simple, and the persons performing it, by assuming the risks of a possible price drop, actually become, consciously, or unconsciously, speculators. This enterprise is considered by informed people, however, to be most respectable and necessary, and as far as I know few of such persons have ever objected to it, although many others do not understand its necessity and importance.

Thirdly, "Speculation" describes the actions of those who at certain times are seized by a veritable fever, for one reason or another, to buy and to hold wheat - usually by means of futures contracts - for an expected rise in price, or to sell it for an expected fall in price.

This form of speculation cannot be distinguished from the most necessary kind described under heading two, excepting by the total amount being done at one time. Speculation coming under this third heading is considered by some, including myself, to be objectionable only when its volume greatly exceeds the amount that might be considered necessary to take care of the farmers' grain coming forward to market.

Fourthly, there is alleged by some people to be "Manipulative Speculation" that is speculation made not with the idea of buying and holding, or of selling wheat for future delivery until the market requires, or can supply it; - or in other words of attempting to anticipate expected declines or rises in price, - but made with the deliberate object of endeavouring to force prices either to rise or to fall, in opposition to, or to a greater extent than is warranted by, the facts of supply, demand or money. This form of speculation is considered to be - and rightly so I feel, too, if it really exists (although

I have never been able to find trace or effect of it) - harmful, discreditable and anti-social.

Now here we see pictured four distinct functions - two considered, I think, to be very respectable, serviceable and proper by all; the third one sometimes regrettable perhaps and even foolish, but not usually very harmful, and certainly not evil; and the fourth, a definitely harmful action, if it really is practised at times as some suppose to be the case. Yet these four actions, so different in their intent and effect upon prices and upon society, are all described by the one single word "speculation".

To illustrate the different meanings which the word "Speculation" has with different minds, I venture to relate that I have actually known some persons, and I have heard of others, who are bitterly opposed to all forms of speculation with wheat on the Winnipeg and other Grain Exchanges, yet who at times themselves buy and sell wheat by means of futures contracts. Some that I have talked to about this, claim that there is a difference between the speculation which takes place on the Grain Exchange and the speculation which they themselves engage in, apparently believing in the spirit of the well known phrase by Emerson - "That which we call sin in others is experiment for us."

The public mind, too, is frequently perplexed by reading the superficial market jargon sometimes so carelessly used in reports about rises and falls in the price of wheat; phrases and jargon that tell us the fluctuating prices have been caused by the market actions of "tired longs", "frightened shorts", "squeezed shorts", "bullish buying", "bear raids", "short selling" and so forth, usually the unconscious results of a befogged mental mixing up of cause and effect, the confusing of fundamental factors with symptoms only; whereas the fact is, that a quiet and detached study and investigation usually reveals, for the most part, that the price fluctuations mentioned were the direct consequence of either a lessening in the demand for wheat by millers and overseas' buyers, or of estimates or revised estimates by authorities, of increasing supplies be-

coming available, or at times because of fluctuations that occurred in the value of money itself.

Is it any wonder, then, that misconceptions, lack of understanding, and even of bewilderment exist in the public mind about the whole wheat business, when there is current in every day writing and talking such a confusion of terms, words and phrases.

Perhaps now, at this point, we might consider what effect speculation, of any of the four kinds mentioned, has, or could have, upon the price of wheat. It is correct to say, it seems to me, that a strong public opinion exists which holds that speculative buying and selling alone is responsible for most of, if not for all, the wheat price fluctuations which occur.

It seems to me that one or two simple tests can be applied which I think will reveal, to a reasonable mind at least, that the effect on price of the mere buying and selling alone of futures contracts, or of wheat for future delivery, or for speculation, is far from being the only important factor affecting price.

For instance, in October 1929 the price of wheat at Chicago was \$1.18 a bushel, and the Grain Stabilization Agency of the American Farm Board then started to buy wheat in large quantities in order to stop the price from falling. By July, 1930, the Agency had borrowed and spent 90 million dollars from the Government and owned 65 million bushels of wheat. In spite of this the price fell to 85 cents, or a drop of 33 cents a bushel during the Board's operation. The Board then announced that no further purchases would be made.

Nevertheless, on November 15th, 1930, as a result of political pressure the Board entered the market again and finally accumulated a total of 192 million bushels of wheat. In spite of all its efforts price fell to 45 cents a bushel by August 1931.

The total net loss of the stabilization operations on grain was expected to be finally just over 204 million dollars. On cotton, with which

similar efforts were made losses were incurred of some 207 million dollars, and there were further amounts for stabilizing operations for such commodities as poultry products, rice, seeds, tobacco, livestock, dairy products, wool, fruit and vegetables; making a total expected final loss to the United States Treasury of \$466,242,661.61, that is to say, these were the amounts outstanding and uncollected when the Farm Board wound up its affairs on June 30th, 1935. It is stated that the bulk of the balance outstanding would probably become a total loss.

Here it will be seen that the speculative purchases by a huge governmental organization, of almost 200 million bushels of wheat, with a loss for wheat alone of around \$200,000,000 was insufficient to stop the price of wheat dropping from \$1.18 in October 1929 to 45 cents by August 1931.

The United States Senate eventually appointed a Committee to investigate the activities and operations of the Federal Farm Board. They issued a report No. 1456, issued July 29th, 1935, and made the following statements:-

"It can now be seen that the stabilization activities were foredoomed to failure; but the Farm Board made its loans for price-pegging without the benefit of the certainties which experience since has taught. The Board set up its stabilization program in response to urgent public demand; and acted, when it did proceed, on assurance from respected advisers that there was no alternative to price-pegging and no strong likelihood of its failure. Inability to halt the decline of commodity prices led to severe losses --"

We are all familiar, of course, with much the same kind of experiment which was made in Canada from 1930 to 1935, with the same object in view, that of stopping the fall of price. Again, here, in spite of an initial purchase or

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taking over of 76 million bushels in the fall of 1930, and the subsequent purchases of additional large amounts by the agency, wheat dropped in price to $39\frac{1}{2}$ cents in Canadian currency (51 cents is the gold standard equivalent in sterling) by December, 1932, on the Winnipeg market.

Judging from the results of these experiments, it would not seem reasonable to suppose that the purchasing of much smaller amounts, which necessarily private persons could only deal in, could possibly have very much influence upon the price of wheat, certainly nothing like, it would seem, the effect that many appear to suspect.

Let us consider another instance,- the price of wheat in Canadian currency in Winnipeg, on December 16th, 1932 was $39\frac{1}{2}$ cents. It rose from that date to \$1.50 a bushel by March 1937, and the rise from 84 cents to the \$1.50, occurred during the last nine months alone. Would anyone seriously contend that any amount of deliberate short selling, even if it could have been done, could possibly have stopped that rise from taking place?

I suggest that the reasonable answer must be "no", for with both these instances, that is, the great fall in price from 1930 to December 1932, and the great rise from December 1932 to February 1937, it must be apparent to all serious students of marketing that the vast world-wide forces of deflation and inflation of money, and of the changing world-wide factors of the supply of and demand for wheat itself, fully accounted for the wide price fluctuations.

No one, of course, would argue that the actual operations of buying and selling of wheat, either for holding or for future delivery, or merely for speculative purposes, do not have some immediate short-time effect on price, but the result of the studies that we have been able to make convinces me that, with a few notable exceptions, which I will later set out, the fluctuations so caused are relatively small, last only for a short period and are quickly readjusted to the levels warranted by factors of supply, demand and money.

In order to support the contention that the final effect of speculation alone, as distinct from the effects of demand, supply and money, upon price is small, I have made, and will submit later in this brief, an examination of some of the fluctuations that have occurred in the price of wheat at Liverpool and at Winnipeg from 1929 to date.

Concerning now the factors which, in the main, influence and govern the price of wheat, first and foremost, as far as the widest fluctuations are concerned, is I believe unquestionably the dominant factor of war. Above all other causes and influences this undoubtedly seems to have caused in the past the widest fluctuations, with the consequent deepest distress, alternately to consumers and to producers. There would seem to be, I venture to suggest, no possibility of obviating the recurrence at some remote time of these vast fluctuations in price, excepting solely by the stopping of war itself.

Mr. Broomhall, several years ago, compiled 500 years of wheat prices. These have been charted (and the chart published) by the Searle Grain Company, and the picture is very revealing, for it shows that while the price of wheat is never stationary, and has continually been fluctuating throughout the 500 years, the extremely wide fluctuations, on the other hand, have only occurred during and immediately after great world wars.

Fortunately, however, great world wars, with all their evil effects, only seem to come about at long intervals. There was, for instance, approximately 100 years between the Napoleonic Wars and the recent Great War, and 180 years between the Napoleonic Wars and the preceding World War, which was the Thirty Years War in Germany.

If this cycle continues at anything like this rhythm it does not seem as though any person now living will be troubled or distressed with anything like such violent fluctuations in the price of wheat as we have experienced since the declaration of War in 1914 to date.

As far as concerns what might be termed the ordinary comparatively moderate fluctuations which are the kind that occur with price in normal times, it is not too much to say, I believe, that almost every daily or even momentary thing that happens in the world, either of a physical, chemical or psychological nature, whether caused by natural forces, or by man's actions, and whether influencing either mankind or animal, insect, bacterial, fungous or other kind of life, or even inert matter, has actually, to a greater or a lesser degree, sooner or later, either a direct or an indirect influence upon the price of wheat on every market in the World, including, of course, that of Winnipeg.

Equally true it is to state, I think, that no human mind, or combination of minds, is capable either of understanding, or of appreciating even a fraction of the innumerable world-wide forces at work, originating either within or without our world, and which finally result in determining from moment to moment the price of wheat.

We can, however, with certainty, make a chart which will reveal the fluctuations that have actually occurred in the past in the price of wheat on various markets, and as well we can compile a list, under appropriate headings, of at least some of the more important factors that have been found definitely to affect and to influence price. These forces might be well listed under the following headings:

1. The supply of wheat for consumptive purposes.
2. The demand for wheat for consumptive purposes.
3. The demand for wheat for speculative purposes.

The factors under these three groups involve the commodity itself directly. Price, however, is measured by a yardstick, namely money, and the fluctuations which occur, therefore, in the value of money itself, of course, directly affect the price of wheat. The money factors may be compiled under the following headings:-

4. The supply of money.

5. The demand for money.
6. The value of the national money in gold or silver.
7. The value of the national money in other national currencies.

The factors embodied in the above seven main groups influence and determine the price of wheat undoubtedly on all markets in the long run; certain other influences, however, may cause prices to fluctuate for short periods and for very moderate rises and declines. Some of these are -

8. The purchasing of futures contracts for holding wheat or for speculative purposes.
9. The sale of futures contracts for future delivery of wheat, or for speculative purposes.
10. Governmental actions which interfere with the free and open market, such as price-pegging, price-stabilization, withholding from the market, prohibitions against imports and exports, setting up of quotas, and of milling restrictions and so forth.

Such governmental actions, history reveals, have sometimes been taken in periods of great booms, with accompanying high prices, and in periods of great depressions with accompanying low prices. The actions, however, seem to have had relatively but temporary effects.

Each of the ten groups of factors are influenced in turn by innumerable causes. The matter is further complicated by reasons of the fact that not only do these causes and factors influence the price of wheat itself, but also because they affect each other.

Perhaps it may be of interest to set out some of the more detailed factors or forces which fall naturally under each of the above mentioned major headings:-

THE SUPPLY OF WHEAT FOR CONSUMPTIVE PURPOSES

1. The amount of the total supply available in the World.
2. The quality or grades of the supplies available in both wheat-importing and in wheat-exporting countries.
3. The amount of the year-end "Carry-Over", of the excess or burdensome surplus, if any.

4. The nature of the distribution of the supplies as follows:-
 - (a) The amount which respectively is in visible and in invisible positions.
 - (b) The habits, thoughts and wealth of countries that hold the supplies or surpluses.
 - (c) The percentage of the supplies that rest in normal wheat-importing and in normal wheat-exporting countries, respectively.
 - (d) The percentage of the supplies and surpluses that lie in public warehouses and in farmers' hands in various countries.
 - (e) The amount of wheat that is in the hands of countries which normally neither import nor export wheat.
 - (f) The percentage of the surplus that is resting temporarily in the possession of traders or speculators, or in the hands of one or more Governments or their Agents.

It will be observed from the many items listed in the foregoing compilation that a mere knowledge, even though accurate, of the single item of the total supply of wheat available in the world at any one moment would be quite insufficient datum to permit of a proper price to be assessed or forecasted.

THE DEMAND FOR WHEAT FOR CONSUMPTIVE PURPOSES

1. The price of wheat in the national currency.
2. The price of wheat relative to the prices of other wheats and of substitutable foodstuffs.
3. The purchasing power of the world-wide usual consumers of wheat and bread, which is limited by the prices they receive for the goods and services they themselves sell.
4. The quality of wheat and bread available to the people.
5. The psychological attitude of buyers and consumers toward any particular wheat exporting country.
6. The quantities of substitutable foodstuffs available.
7. The positions in which substitutable foodstuffs are held.
8. The quality of substitutable foodstuffs.
9. The ability of usual would-be buyers of wheat and flour to obtain "foreign exchange" or the currency of the country offering wheat for sale, this ability being governed and limited by the amount of their own goods, commodities and services, which they in turn can sell to other countries.

10. The relationship of international foreign exchanges one with the other.

So far the factors enumerated have dealt with the measurement of price in terms of the commodity itself, just as though a door were being measured for height and for width with a two foot rule. Now, however, there must be taken into account the fluctuations that often occur during and after wars in the value of money itself, which is the yardstick that measures price, or with what would be the same thing in our analogy, with the varying lengths of the two foot rule itself which is used to measure the door.

THE SUPPLY OF MONEY

1. The quantity of gold in the world which is stored and used for monetary purposes.
2. The quantity of gold in the world existing in the form of jewelry and for industrial purposes, and that might become available for monetary purposes if required.
3. The distribution of these classes of gold among the various countries in the world.
4. The quantity of paper money printed by different countries in comparison with the gold each respective country holds.
5. The amount of gold, if any, set by law, with which various countries offer to redeem their currencies, either to the people or to other nations, or to banks.

THE DEMAND FOR MONEY

1. The general welfare of the people of the various countries, which prompts them to demand more or less gold for ornaments, jewelry or industrial purposes.
2. The general volume of the mass of the production of goods, commodities and services, which in turn increase or decrease demands for money with which to conduct the necessary commercial transactions.
3. The extent to which extraordinary demands for gold may appear owing to fear by the people that wealth and property may be highly taxed or might be expropriated by Governments.
4. The insistence and force of the demands made by nations for repayment of loans made to other countries in order to prosecute a war or for other purposes. These insistent demands at times in the past having induced certain Governments to print large quantities of their paper currency with which to pay their internal debts, and sometimes indeed with which to endeavor to pay part or all of their

external debts.

THE VALUE OF THE NATIONAL MONEY IN GOLD OR SILVER

As the value of paper money, in terms of gold, increases or decreases, so does this tend to bring about inflation or deflation and so, in time, a corresponding rise or decline in the price of all the things that are purchased with money.

THE VALUE OF THE NATIONAL MONEY IN OTHER NATIONAL CURRENCIES

Such differences in value may occasionally have far-reaching consequences to any particular country, for they might cause violent fluctuations to occur in the prices of goods and commodities in such a country.

As an example, when, for instance, Great Britain left the gold standard in September, 1931, and Canada maintained her currency at a higher value in terms of gold, or in other words did not inflate to the extent that Great Britain did, the price of wheat in Canada fell to a lower level than otherwise it would have done. I calculate that this extra drop in price amounted to about 12 cents a bushel on the Winnipeg market, so that when the price of wheat at Winnipeg on December 16th was at its lowest point of 39 1/2 cents, I calculate that the price would probably have been 51 cents had either Great Britain not left the gold standard or had the Canadian dollar followed step by step in inflation with the British pound.

Conversely, no small part of the rather sharp rise that took place in Winnipeg wheat from December 16th, 1932 to March 1933, was in turn caused by the fact that the U.S.A. dollar was devalued approximately to the level of the pound sterling, and that the Canadian dollar followed suit almost exactly.

It was noteworthy at the time that many persons thought that the drop in the price of wheat to 39 1/2 cents on the Winnipeg market, and its rise in the next few months had been entirely caused by the factors of supply and demand in wheat, the drop from the lack of speculation, whereas it seems that at least 12 cents of the drop and the rise was accounted for by the changing

values of Canadian money in terms of the British pound sterling.

Again it will be seen that the mere appraisement of the total supply of wheat available, and of all the many incidental features of supply, and as well an appraisement, if that were possible, of demand with all its incidental features, would in themselves alone be insufficient data upon which to found a proper appreciation or forecast of the price of wheat, for the yardstick of money itself alone has also at times, as we have seen, a most important influence.

Incidentally I venture to point out that while there are most excellent statistics available for certain series of certain fields of the supply of wheat, yet there are certain features even of the supply, some of which have been mentioned, about which no accurate statistics exist. Particularly is this the case with respect to what are usually termed invisible supplies, that is to say those supplies that exist in the bins and stacks of the farms of the world, and in many small mills and warehouses, about which only intelligent guesses can be made.

When we come to consider the many factors that influence the demand for wheat here the information available is much less complete even than with the supply series. Generally speaking no statistics of demand are available at all. Certain rather general estimates are tentatively made by various authorities from time to time, but they do not pretend to forecast demands accurately. It can be said, I think, truly, that an appraisement of demand is more a matter of good judgment than of calculation; and good judgment of course, in the business field, particularly in matters pertaining to foodstuffs, is, to say the least, not common.

With respect to the money factors, supply and demand and so forth, here we find ourselves in a field that defies even intelligent guessing. Apparently no one can foretell the actions that the Governments of the World, either singly or in combination, will take next week, or even tomorrow, on the

question of money, gold, silver or currencies, and such actions, as we have seen, can, and do, have a most profound influence upon the price of wheat.

THE PURCHASE AND SALE BY MEANS OF FUTURES CONTRACTS OF WHEAT FOR
HOLDING OR FOR SPECULATIVE PURPOSES

These, in the main, are the definite actions which take place which enable a price of wheat to be reflected or noted, for most of the buying and selling on international markets of wheat is through the medium of such transactions. Many consider, however, that it is these transactions alone which determine or "set" the price of wheat, whereas these actions themselves, in fact, are mere reflections, or the symptoms, of the vast forces of supply, demand and money, such as have been set out previously in this brief. The probable influence of speculation, in its various forms, upon prices, has already been discussed.

Careful consideration of the foregoing factors which influence wheat prices will reveal that they themselves, in great measure, are in turn caused to vary or fluctuate because of variations which occur in weather conditions, particularly with rainfall.

Studies with the object in view of indentifying as precisely as could be the influence which various factors have in bringing about fluctuations in the price of wheat have been going forward by different organizations and parties for some years. In general the studies have been pursued along two fields or avenues of research:-

(1) The attempt to identify and to isolate the volume and weight of speculation or the buying and selling of wheat by means of futures contracts, particularly the weight and volume of short-selling, and of what has been alleged by some to be "manipulative speculation", that is speculation entered into deliberately with the object of influencing price by means of the sheer weight alone of the purchases or sales.

Under this system of investigation, it seems, whenever a rise or fall

in price cannot be accounted for by speculative forces alone, then I believe it is assumed that the fluctuations must have been brought about by the forces of supply, demand or money.

The United States Commodity Act Administration has, for a number of years, been working along these particular lines, and they have issued a number of studies and discussions on their findings and opinions.

It can be said, however, that while from time to time the Administration has drawn attention to certain instances of fluctuations in price, which they suggest may have been caused by the weight of speculation or of the actions of buying and selling themselves, yet there are students of wheat prices, and of wheat marketing among whom I number myself, who are not convinced that the fluctuations cited were actually caused by the weight of excessive speculation alone. Some critics claim that the statistics presented by the Administration do not appear to be able to warrant the inferences sometimes drawn by the Administration.

(2) The other field of investigation attempts to discover whether any particular fluctuation that is noted can justly be attributed definitely to known factors of supply, demand or money that were apparent at the time, and which seem to warrant the fluctuation. Under this method of investigation it is assumed that the fluctuations must have been caused by the weight of excessive speculation or by the lack of speculation whenever it is not possible to find an answer within the fields of supply, demand or money.

The Food Research Institute of Stanford University, California, in their "Wheat Studies" give rather exhaustive and most valuable explanations of the rises and falls of prices that occur on many markets, without however, I believe making any elaborate effort to designate, in detail, how much of any fluctuation was caused by excessive speculation and how much by the factors of supply, demand and money.

My Department, since 1930, has conducted an investigation along certain

lines. Since 1929 the daily price of wheats on the Liverpool market, for the Liverpool future, for Argentine wheat, Australian and Canadian wheat, have been charted. Changes in the relative value of currencies one with the other, and all with gold, are charted daily in addition.

Also the price of wheat at Winnipeg is charted in relationship to the Liverpool "future".

The daily fluctuations are carefully noted, and a running daily record is kept of the factors that come to light which, it is judged, have the effect of bearing down upon price or of tending to make price rise.

An attempt is then made to estimate what part of the fluctuations that have been noted have been brought about by the news and information that is available of supply, demand and money, and what part, if any, has been caused by excessive speculation or perhaps by the lack of speculation.

THE RESULTS OF THE INVESTIGATION

The study of fluctuations which occur in wheat prices has been made by us, in two parts, both from 1929 to date.

The first price series studied was that of the Liverpool future itself, which is considered by some to represent quite closely what might be termed the world price of a certain described quality of wheat.

Our investigation leads to the conclusion that such fluctuations as have occurred in the Liverpool future, are, in the main, caused by fluctuations in the factors of supply, demand and money, and to a very small extent, and then only within narrow limits, by what might be termed excessive, or the lack of sufficient, speculation. There is no evidence, as far as I can find, at any time within the period mentioned, of there having been what some term "manipulative speculation", or of so-called Bear Raids or at all events, if they ever have existed I am unable to find that they have had any noticeable effect upon price.

Or, to put it in other words, had there been no "futures" markets in

the world, and no buying and selling for speculative purposes, but only purchasing of cash wheat, then taking into account the statistics, information and news that came forward of the details of the supply of, and demand for, wheat and money, I am forced to conclude that the prices, as registered, at any moment of the Liverpool future price, did, in the main, properly reflect the news of the world economic conditions that existed at that moment.

The second price series studied is that of No. 1 Northern cash wheat, in store Fort William, or what is often termed the Winnipeg price, which can be examined in two parts, firstly those wide fluctuations that coincide in general with the fluctuations of the Liverpool "future", which, as I have already stated, I conclude are not unduly affected by speculation. From this I draw the conclusion naturally that the greater part of the price changes that have occurred with the Winnipeg prices, because they accord with the changes in the Liverpool future, are also not unduly affected by excessive, or by the lack of sufficient, speculation. We are referring here only to such a violent drop as occurred at Liverpool from \$1.50 in 1929 to 54¢ in 1931, and to such a violent rise as occurred from 54¢ in 1931 to \$1.54 on April 6, 1937.

Secondly, there remain, however, to be examined those differences that have taken place, or those spreads that have existed, between the Fort William price and the Liverpool "future" price. While these in some instances are fairly wide, they are nothing like as wide as those wide swings which we have mentioned, that occurred with the Liverpool "future" and with the Winnipeg price.

The spreads in question between the two price series vary from as much as 24 cents for the Fort William above the Liverpool future to 34 cents below it. (Some consider that the annual average spread would be about right on the average when the Fort William price would be 10 cents lower than the Liverpool future, this taking into account the freight rates

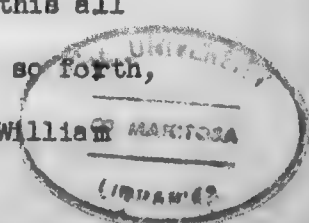
and charges from Fort William to Liverpool, and after making allowance for the superior quality of No. 1 Northern over the average quality of the wheat tenderable on the Liverpool future). The average spread, however, from January 1929 to March 1937 - a period of 8 years - works out exactly at $4 \frac{3}{4}$ cents only for the Fort William price below the Liverpool future.

At times, when the Fort William price has been lower than it should have been under the Liverpool future, then most definitely part of the spread has been caused by differences in the gold value of the Canadian dollar and the British pound.

If therefore, we recalculate the spread between the Fort William price and the Liverpool future, deflating from the spread the difference that has been caused by the differences in turn in Canadian and Sterling currencies, then we find that over the same period, that is from January 1929, to March 1937, the Fort William price has averaged only $2 \frac{3}{8}$ cents below the Liverpool future instead of the average of 10 cents which some consider would not be unreasonable low on the average.

It would appear, then, that over the term of years in question, the price of No. 1 Northern, in store Fort William, has not been on the average below the Liverpool future more than it should have been, but on the contrary seems to have been higher than one would have expected it to be, that is assuming that the correct spread, as stated previously, should be about 10 cents.

I have tried to find out the nature of the forces connected with the system of buying and selling wheat by means of futures contracts that bring about the apparently somewhat higher price of wheat at Winnipeg than the price of the same grade at Liverpool appears to justify. I have frequently in the past taken the price of Canadian wheat at Liverpool, deducted from this all handling charges, ocean and lake freight rates, inspection fees and so forth, and have discovered that usually the actual price of wheat at Fort William is higher than these calculations indicate it should be.



Apparently, then there must be some people who at times pay more for wheat at Winnipeg than the wheat is eventually sold for at Liverpool after deducting all expenses. Who are they?

Some light, I think, is thrown on this problem by a study made by the Food Research Institute on the financial results of the speculative holding of wheat for forty-one years, which was published in "Wheat Studies" in July, 1931. Some of the conclusions were as follows:

"-----that speculative holding of wheat has, during the past 41 years, shown more losses than gains." (page 417)

"Futures trading in the United States, over the forty-one years under review, must therefore have resulted in a narrowing of the spread between the weighted average price received by producers and the weighted average price paid by consumers.

It is clear, then, that there exist no large profits of speculators, as a group, which may be supposed to have been made at the expense of either producer or consumer. On the contrary, speculators in futures, as a group, have lost money." (page 433)

"It appears, therefore, that speculators in wheat futures taken as a group have in the past carried the risks of price changes on hedged wheat and have received no reward for the service, but paid heavily for the privilege." (page 435)

It may be, then, that the explanation of the apparently higher level of wheat prices at Winnipeg, that appears justified at times, would seem to be perhaps that the speculators who buy wheat for future delivery from the Elevator Companies, in their keen desire to make a profit, bid against each other to the extent that on the average they pay a little more at Winnipeg than the wheat commands eventually on the Liverpool market.

Inasmuch as the Winnipeg price forms the basis for the prices that are reflected to the farmers at country elevators, then it would seem that the higher price paid by the speculators in Winnipeg in turn finds its way into the pockets of the farmers, so it seems fair to argue that the speculator, far from being a liability, is actually, in the long run, a good friend of our Western farmer by assisting him to secure a better price than would be the case if speculators were absent.

In spite of this average level in the price of Winnipeg wheat in comparison with the Liverpool future, which might be considered better than justified, as already stated, quite severe fluctuations at times have occurred, and the point I believe that has ever troubled our farmers and other people, has been to determine whether these fluctuations are to be accounted for by fluctuations in supply, demand and money, or whether they are the consequence of excessive speculation, or of a lack of speculation, or even as a result of the weight of speculation alone. We should keep in mind, I think, that while the differences between the Fort William price and the Liverpool price at one time of 24 cents above, and at another time of 34 cents below, as compared with a normal of perhaps 10 cents below, are small in comparison with the great changes that have taken place in the Liverpool future itself, yet they are of some moment, and are worthy of receiving careful scrutiny.

As a result of a detailed study of these particular spreads, the details of which studies I submit in a later part of this brief, I conclude that the price of wheat at Winnipeg has been affected by speculative buying, and by speculative holding, to a greater extent than has the Liverpool future. I cannot find, however, that the Winnipeg price has been affected adversely to any material extent, by speculative selling, neither can I find any indication whatsoever of private "manipulative" speculative buying or selling nor of excessive short selling nor of so called Bear Raids.

Many of the fluctuations between the Winnipeg and Liverpool prices were the consequence of, as I shall endeavor to show, the conditions of supply and demand, or of expected conditions of supply and demand of Canadian or of U.S.A. wheat and crops; for it is but natural, of course, that news about Canadian and American crops and supplies, of an important nature, would have a wider and more immediate effect upon the Chicago and Winnipeg markets than they would have upon the Liverpool market, where any news received from this Continent is often dampened or cushioned by perhaps the opposite kind of news that might be received from some other large wheat-producing or consuming country in the World.

However, I find only three occasions between 1929 and 1937, and then only for comparatively short periods, when the Winnipeg price of wheat was lower than its apparent proper relationship with Liverpool, and then only for a few cents a bushel, and while it might be considered that the Winnipeg market during these periods lacked sufficient speculative support, yet even that lack, if it really existed was justified I feel by the abnormal circumstances prevailing during those particular times.

On the whole, however, whatever, and perhaps in spite of, the happenings, it should be noted particularly that the average spread between Winnipeg and Liverpool over a period of 8 years has been considerably less than one might have expected it to be.

Put into other words, had the price of wheat in Fort William or Winnipeg not been affected or assisted by speculation on the "futures" market, it seems correct to say that the prices for Canadian wheat would no doubt have been lower, hence the prices that the farmers would have received on the average would have been lower, and certainly not higher than they actually were.

I submit a chart, "A", which shows the prices of the Liverpool

future and of No. 1 Northern in store Fort William. The prices are charted for every Tuesday of each week, - Tuesday being taken because this is the weekly date that for years has been used by Mr. Broomhall in quoting and compiling the Liverpool future; the prices, therefore, are easily available.

To have charted daily prices, for it to have shown clearly on the chart, would have been exceedingly difficult, and while there have been times where fluctuations within the week have occurred, they have not, on the whole, been very great. I feel, therefore, that the charting of the weekly prices reveals a picture that for the purpose of this brief is sufficiently accurate.

On the chart, for the purpose of comparison, is shown the Argentine price with a thin line -- also is shown the price that Canadian wheat would most probably have been had Great Britain not left the gold standard on September 21, 1931, or had Canada followed Great Britain's action on that date in devaluing her currency.

On chart "A" are also shown the declines in prices which took place with several important commodities - in Canadian markets and in Canadian currency - other than wheat during the depth of the depression in 1932.

In addition, for reference, on chart "A" is placed the world's "Carry-over" of wheat, as computed for August 1st each year, by the Food Research Institute.

Also for reference and comparison is placed on Chart "A" the British Statist Index Number of prices of 45 basic and important wholesale commodities.

Chart "B" is also submitted, and shows the spreads between Fort William No. 1 Northern and the price of the Liverpool future, using the latter as a straight base line. Here again on this chart is shown, on a separate line, what the spread would most probably have been had the Canadian dollar and the pound sterling remained at the same relationship from September 1931 to July 1933, that they were before that period, and have been since the latter date.

On this chart as well, for reference, is shown the yearly shipments of wheat that took place overseas from Canada and from the Argentine respectively, and in addition columns indicating the Canadian "Carry-over" in store on August 1st each year.

The prices that are recorded both at Fort William and at Liverpool, and the news of the apparent causes which influence prices, are respectively collected and compiled, as a matter of routine, by the Research Department of the Searle Grain Company each and every day and have been since 1930, then once a month a summary of the information is published in the Searle letter. It is because of the daily observation and study of these matters that I have evolved in my mind the conclusions which I have already set out, and which can be summarized briefly as follows:-

S U M M A R Y

DEALING WITH THE LIVERPOOL FUTURE

1. That the Liverpool future can well be regarded as the best index available of what might be termed the World price of a certain described cheapest quality of wheat.
2. That the Liverpool future is apparently affected but little, and never for long, by the weight of excessive speculative buying or selling or by the lack of sufficient buying.
3. That the Liverpool future, as far as can be judged by the fluctuations of prices, has not been affected by what is alleged by some to be "manipulative speculation".
4. That the very wide fluctuations which have occurred with the Liverpool future from 1914 to date have been caused mainly and directly by the inflation and deflation of money and of currency, and by the consequent loss of business confidence springing from this, all of it in turn a direct consequence of the Great War, and that these price fluctuations are not in the main the result of the factors of supply of, or of the

demand for wheat or of speculation.

5. That the moderately wide fluctuations which have occurred, and which are not the consequences of money changes, have been brought about, in the main, by changes in the supply and demand factors of wheat.
6. That the weight of the buying and selling, the "higgling and haggling" that continually is taking place between buyers and sellers for cash wheat, for wheat for future delivery, and for purchases for speculation, i.e. for endeavouring to anticipate price rises and falls, has undoubtedly some temporary effect upon price changes. These effects, however, are rapidly adjusted if the anticipations of the buyers and sellers are not shortly fulfilled by the actual factors of supply, demand and money.
7. That there has been a broad, general relationship between the average levels of the Liverpool future on the one hand, and the amount of the world wheat "Carry-over" on August 1st of each year, plus the fluctuations of the British Statist Wholesale Commodity Index (which reflects closely, I believe, fluctuations in the value of money) on the other hand.

DEALING WITH THE FORT WILLIAM OR WINNIPEG PRICE

1. That I have not been able to find any evidence whatever of private so-called "manipulative speculation" that has effected the Winnipeg or Fort William price.
2. That the very wide fluctuations which have occurred, as is the case with the Liverpool future from 1914 to date, have no doubt been caused directly and indirectly by the inflation and deflation of currency, ~~and~~ of money, and by the consequences of it all.
3. That in the long run the forces of supply, of demand and of money govern the Fort William price.
4. That the price of Fort William wheat has at times been raised to levels that were decidedly high in comparison with the Liverpool future, by

the forces respectively of excessive speculative buying by the public, and at other times by the price stabilization operations of the Government.

5. That there seems to be no instance where the Fort William price has been forced to a lower level than was warranted, in relationship to the Liverpool future, by the force of speculative buying or selling.
6. That there are but few instances between 1929 to date, where the Fort William price has fallen lower than would seem justified in relationship to the Liverpool future, and that even in these cases the drops were but for a short time and for only a few cents, and are perhaps explainable and excusable due to unavoidable causes; although perhaps from temporary lack of sufficient speculation which in itself if it was the cause, was I feel quite explainable by the abnormal conditions then existing.
7. That the major part of the severe decline that occurred in the price of wheat between September 1931, and June 1933, was caused not by the factors of supply and demand of wheat, nor by speculation in wheat, nor by the absence of speculation, but simply because the British pound sterling was devalued in relationship to gold, and that the Canadian dollar did not follow suit.
8. That during the depths of the depression in 1932, many other products such as rubber, potatoes, calf skins, beef hides, raw silk, furs, wool and sugar fell both on Canadian and in World markets to lower levels than wheat, that manila hemp and sheep skins fell to the same level, and that many additional commodities fell almost as far as wheat.
9. That moderately wide fluctuations occur at times in the price of Canadian wheat at Winnipeg, to a greater extent than occur with the Liverpool future, this being explained by the fact that the conditions of supply and demand concerning the large crops of wheat and other grains, and changes in the conditions of money on the American Continent, have a more direct and immediate effect, and on occasions a greater effect, at least for a time, upon the

Chicago and Winnipeg markets than they have upon the Liverpool future.

10. That the weight of daily buying and selling of wheat by means of futures contracts for hedging and for holding, and for speculative purposes, usually have a comparatively slight effect in themselves, and only for a short time, upon Winnipeg price, and that even these minor fluctuations are usually quickly adjusted, by the force of the factors of supply, demand and money.
11. That speculative risks, hence speculation is a vital and necessary part of the marketing of Western Canada's wheat, and cannot possibly be eliminated by any method of marketing that conceivably could be attempted or set up.
12. That it seems impossible even to imagine any method, plan or policy of marketing Western wheat unless some groups of persons are willing to hold the wheat from harvest-time until the millers of the world require it. Such groups would naturally have to assume the risks of a price drop, which actually means they would have to undertake speculative risks and so would be engaging in that function termed "speculation".

CONCLUSIONS

The innumerable world-wide forces which influence and finally determine the price of wheat, are, it seems to me, so complex, so difficult of estimation, perhaps even of recognition, that it would appear to be an impossible task for any one human mind, or indeed for any group of minds, even to be able to compile sufficient information about them to permit of determining what a justifiable price of wheat at any time in the future should or will be.

The open "futures" markets of the world interrelated, and interlocked to some extent, as they are by instant communication and dealings one with another, would seem, however, to form one delicate piece of mechanism which,

without requiring any deliberate directing force or mind, is capable of registering what can be said to be a price which is justified at any moment, at least by the world-wide economic conditions of supply of and demand for wheat, and all other foodstuffs and commodities, and money.

These markets, too, it would seem, through their various operations which to a great extent are almost automatic, do reflect back to the producers, the prices which the markets register. Reflect the price back too, with a very minimum of deductions for the necessary costs incidental to transferring the wheat from the producers to the consumers of the world.

It must be realized however, or so it seems to me, that these efficient and delicate mechanisms of the "futures" markets, most excellent as they are for registering a price in accordance with, and warranted by, world conditions, are not in any way mediums for assuring either to consumers or to producers prices which at all times, or at any time, will be considered to be satisfactory to either group, or prices that would be sufficient at any moment to cover what some might estimate to be the cost of production, or to cover any definite standard of living which producers might feel they are entitled to; excepting that it seems to me that over a fair period of years the prices returned to producers on the average, in the past, excepting during the recent depression, can be considered to be reasonably satisfactory, but this of course is not true of any one year, or of any small number of years as a group.

When considering the yardstick of the standard of living which many producers quite rightly hold that they should enjoy, it must be remembered that this is governed in the end only partly by the price itself of wheat; but is governed even more by total income - which means the price per bushel multiplied by the number of bushels produced and sold - and also even still more governed by what that total income itself will buy - which means by the prices the farmers have to pay for the things they purchase for production and living.

With all these limitations, however, I can only conclude, as the result of my own experience and study at any rate, that the open "futures" market seems to me to be the best method known today for returning to Canadian wheat producers the highest prices obtainable per bushel from world markets, and for selling without fail, when it is not interfered with in its operations, each year the largest quantity of wheat produced by Canadian farmers. I can conceive, at all events, of no other system that could possibly be tried, that would perform these particular functions as well in the long run, all things considered, for the producers.

One other matter, it seems to me, is worth bearing in mind, which is that the whole period from the start of the Great War, August 1914, until this very moment, has not been, as far as economic conditions are concerned, a normal one. Almost every moment of this whole period has suffered from, and has been influenced by, those vast economic convulsions and disturbances which ever occur and persist after great wars for about the same length of time during which we have suffered in recent years.

What has occurred, therefore, with prices, that is to say their great rises and great falls above and below normal, are not, I for one believe, at all in any way to be taken as an indication of the fluctuations, or the rises and falls, that will happen in the future when complete recovery from the after-effects of the war comes about, or when normal times of peace are with us again.

Should, however, a great World War again occur, then it seems quite certain, to me at all events, that the same extraordinary rises and falls in wheat prices, and in the prices of most other commodities, that have occurred in the past, will inevitably happen again. I suggest that when these great drops in wheat prices occur, probably far below the cost of production, that Governments in the future, as they have been in the past, will find themselves subjected to much pressure either to give some form of a bonus to

producers, or to guarantee some form of a minimum price, and as well I believe, will Governments find it necessary again, as they have done in the past, to relieve farmers of some taxation, and to protect them against those creditors who might be inclined to be too harsh with debtors.

All these things so that farmers may continue with the important service they perform to society of producing such supplies of foodstuffs as the people of the world require.

For some time past there evidently has been a feeling in some countries that it would be in the interests of producers of wheat, and of society at large, if the buying and selling of wheat by means of "futures" contracts on "futures" markets were to be lessened, or perhaps eliminated altogether, the feeling being founded, to the best of my knowledge, upon the belief by certain persons that somehow "futures" markets could function, or that wheat could be marketed quite effectively without speculation.

For myself I cannot help but feel convinced that the speculative buying of wheat, and the holding of it until the ultimate market requires it, is a most important and necessary economic function in the chain of the movement of wheat between producer and consumer, and I for one fear that if harsh regulations should ever be made which would tend to repress the legitimate operations of speculators, that the latter then would become discouraged, and would tend to be driven out of the market. The consequence of this would be, as I see it, either that prices would drop to lower levels than would be justified because of lack of sufficient speculators to take up the merchants' hedges, or that the grain merchants themselves would have to hold the wheat they purchase without hedging, thus incurring grave risks of losses from declines in price.

Such risks of losses, of course, would force them, in order to survive, to increase, perhaps considerably, the moderate charges they now make to producers for handling grain at country elevators.

The extreme difficulty of comprehending, and even of explaining effectively to people, the true nature of speculative risks, is I feel, fundamentally the reason for a great deal of misunderstanding and misconception, which leads in turn to suspicion, hence to prejudice.

Speculative risks, it can be said truly, are a natural and ineradicable part of the marketing of any product, and of the movement of any product from producer to consumer. Risks are inevitable with man from birth to death, a part of his economic, individual, or social activities, and a natural part of life itself.

Neither the "futures" market, nor the operations of the grain merchants; neither Wheat Boards nor Co-operatives, nor Pools, create speculative marketing risks. The risks simply exist. Man did not bring them into existence - man cannot remove them. Risk is tied to, and is a part of, every kernel of wheat when it is born, and cannot possibly be eliminated, by any human means, until the ultimate consumer purchases the wheat in the form of feed or bread.

The assumption of speculative risk, therefore, which to some seems an unnecessary or even an evil thing, actually is an inseparable part of any system of the marketing of wheat, or of any other commodity.

Speculative price risks can never be eliminated. The price risks can, however, be passed on from one person to another, or from one group of persons to another, but some persons, or some group, in the end, must assume the price risk, and whoever assumes it from an economic point of view is, of course, speculating.

Governments themselves are unable, by any law or regulation, to eliminate risks. All a Government can possibly do by law is to decide which individuals, or which groups of people, shall shoulder the risk, whether it shall be those who produce the wheat, ~~whether~~ it shall be the tax payers, or whether it shall be those persons who, in their desire to make a profit, are

willing themselves, with their own money, freely to assume the price risks, and so to lift the burden from the shoulders of farmers, grain merchants and tax payers; but in the end the effect is the same, the risk inherent with wheat on its way from producer to consumer can neither be lessened nor eliminated. It must be borne by someone. Wheat and price risk comprise a compact whole which is infrangible.

THE ANALYSIS OF THE PRICE FLUCTUATIONS

Before discussing the details of some of the fluctuations that have taken place with the Liverpool and Winnipeg prices, there are several other things revealed by the charts which would seem to be worth considering.

Attention is first drawn to the rather general relationship which exists on chart "A" between the swing of the price of wheat at Liverpool from 1929 down to 1931, with the gradual rise to date, all on the one hand, and the curve of the line of the Statist Index of Wholesale Commodity Prices in Great Britain on the other.

Had the world surplus of wheat not increased from 1929 to 1934, then the drop and the rise, or the general curve of wheat prices, I believe, would at least have fitted rather closely to the curve of the Statist Wholesale Price Index.

It will be noted, however, that the curve of the price of wheat dropped further than the Statist curve during the years of the depression. The reason of this extra drop in wheat, I think, is found in the increase which took place in the World's "Carry-over" of wheat.

Or in other words I suggest that if the curve of the World's "Carry-over" of wheat were to be superimposed upon the curve of the Statist Index line that there would be then a very close relationship between those curves on the one hand, and the curve of the price of wheat on the other.

Certainly it is interesting to note that as the Statist Index curve

declined, and as the "Carry-over" of wheat became greater, that the price of wheat at Liverpool fell, and that as the Statist curve started to rise and as the "Carry-over" of wheat became less, the prices at Liverpool correspondingly began to rise.

Next it is worth remembering, I think, that the great drop in prices which took place between 1929 and 1932, affected not only wheat but all other commodities in the world as well, and chart "B" reveals that low as was the level to which wheat price fell in Canada in 1932, there were also a number of commodities, the prices of which fell as far, and some even that fell to a far greater extent, some of the latter being: Mexican sisal, sheepskins, manila hemp, raw silk, beef hides, calf-skins, potatoes, and notably rubber.

Obviously, therefore, it was not the factors of supply or demand or speculation affecting wheat, which alone brought about the great drop in wheat price from 1929 to 1932. There must have been some deeper cause which brought down the price of all commodities, wheat included. This common cause is considered by some, with whom I include myself, to be the deflation of money, which in turn was apparently the inevitable and perhaps final consequence of the great inflation of money which occurred during and immediately after the Great War.

Interesting to note also, on chart "B", is the rather close relationship that exists between the amount of the sales of Argentine wheat and Canadian wheat respectively, and the spread between the Fort William price and the Liverpool "future". As the price of Canadian wheat rises above the Liverpool "future", so it seems does the sale of Canadian wheat tend to become curtailed, and the sale of Argentine wheat, for instance, and no doubt of other sorts, tend to increase; whereas on the other hand when the price of Canadian wheat falls below the Liverpool future, so does the sale of Canadian tend to increase, and in turn so, apparently, does the sale of Argentine, and no

doubt of other sorts, tend to decrease.

Also of interest, I think, are the columns showing the amount of Canadian "Carry-over" on August 1st of each year, revealing that a decided increase started in 1933 as the price was maintained by the Stabilizing Agency, and that it was not until the price of Canadian wheat in the fall of 1935, and subsequently, was permitted by the Wheat Board to drop below the Liverpool "future", that the Canadian burdensome surplus began to disappear.

Here I think we have a good illustration of the fallacy of the contention which is so often put forth by some, that Canadian wheat producers would be better off if the price of their wheat were not to fluctuate, but were to be constant and stabilized.

The chart reveals, it seems to me, that the inevitable consequence of such a stabilization or "fixing" of the price of Canadian wheat would be a loss of world sales, the result in turn of what I conclude to be a definite fundamental economic force constantly at work governing the consumption, hence the marketing, of international foodstuffs; this force operating, I believe, somewhat as follows, and for the following reasons:

The great mass of the world-wide buyers of foodstuffs - the housewives of families with strictly limited and often low incomes - are compelled by sheer economic pressure to endeavor day by day to make their small means stretch as far as possible; and so these consumers ever seek to obtain the largest possible amount of food value for their money.

If, therefore, the price of any particular foodstuff, Canadian wheat for instance, were to be "fixed" or stabilized, while at the same time other competing wheats or substitutable foodstuffs were free to fluctuate in price, then it means that the other wheats and the substitutes would from time to time become relatively cheaper, or would be better "buys" than Canadian wheat, so the substitutes would be purchased in large quantities, and the Canadian wheat in lesser quantities, hence inevitably leading, in the end, to the

condition which occurred from 1933 to 1934, and which is noted on the chart, i.e. the piling up of a burdensome and unsold surplus of Canadian wheat.

If I am correct in thinking that this force or principle is ever at work in our economic world, then it would seem that a continually fluctuating price for Canadian wheat is the best, and perhaps the only, assurance that Canadian wheat can compete continuously with other wheats, and with all other substitutable foodstuffs, on the markets of the world; so in turn it means that a fluctuating price for Canadian wheat, would be the best assurance of continued sales, in large quantities, on world markets, hence the best assurance to producers that they can continue to grow wheat in large quantities.

It can be taken for granted, I think, that the prices of wheats competing with Canadian, and the prices of the innumerable foodstuffs which can be substituted for all wheat, can never be stabilized, but must ever fluctuate in price, for the simple reason that these prices are influenced and governed by innumerable factors of demand, supply and money, which in turn are controlled by the weather, changing tastes, fashions, governmental policies, demands and so forth; which influences are all most notoriously unstable and actually are continually in a state of flux. It would not seem, therefore, that prices themselves ever can be much more stable than the continually fluctuating factors and elements which in turn control and influence them.

